

MULTIFUNCTIONAL COVER INTEGRATED INTO SUB-PANEL OF PORTABLE
ELECTRONIC DEVICE

ABSTRACT OF THE INVENTION

5 A cover for an opening in the housing of a portable electronic device that provides a function in addition to that of protecting the opening from dirt. The cover can be coupled to the housing so that it can move between a closed position within the housing's surface recess and an open position that allows access to the opening in the housing. In the closed position, the cover becomes

10 part of the housing and the of the device is generally unchanged. The cover can function as an antenna for wireless communication between the device and a network or access point, and it can contain circuitry for devices such as transmitter/receivers. The cover can also function as a display device, a speaker, or an alarm. Thus an existing cover that occupies space within the

15 volume of a handheld device can be utilized for expanding the functionality of the device while generally retaining the current form factor of the device.